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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/812,478	03/30/2004	Paul R. Austin	D/A2120	3268

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EXAMINER	
KO, TONY	
ART UNIT	PAPER NUMBER
2878	
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06/15/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/812,478	AUSTIN, PAUL R.	
	Examiner	Art Unit	
	Tony Ko	2878	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 April 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This office action is in response to amendment filed on 4/03/07. Currently claims 1-20 are still pending.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2, 7, 11 are 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Ozeki (U.S. Patent 6,317,242).

3. Regarding claims 1 and 11, Ozeki discloses (Fig. 1) a method, comprising: associating at least one light source (42a) and at least one light sensor (42b) with at least one component (40) of a data processing system; at least one other light source (42a) and at least one other light sensor (42b) associated with at least one other component (40) of said data processing system; and wherein data is communicated directly between said at least one component and said at least one other component of said data-processing system by transmitting light with one or less turns at a reflection point from said at least one light source to said at least one other component of said data processing system by transmitting light from said at least one light source to said at least one other light sensor or one or less turns at a reflection point from said at least one other light source to said at least one sensor. (Figure 1 shows the transmission of signal with one or less turns from the emitters to the receivers)

4. Regarding claims 2 and 12, Ozeki discloses (Fig. 1) at least one light path patch established between said at least one component (1a) and said at least one other component (1b) of said data-processing system in order to communicate data by light among said at least one light source (2a), said at least one sensor (7a), said at least one other light source (2b) and said at least one other sensor (7b).

5. Regarding claim 7, Ozeki discloses (Fig. 1) aligning said at least one component directly opposite said at least one other component in order to form at least one direct light path between said at least one light source (42a) and said at least one other sensor (42b) and said at least one other light source and said at least one light sensor.

6. Claims 1, 5, 6, 8, 9, 11, 12, 15, 16 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Orino (U.S. Patent 5,530,557).

7. Regarding claims 1 and 11, Orino discloses (Fig. 1) a method comprising: associating at least one light source (2a) and at least one light sensor (7a) with at least one component (1a) of a data processing system; at least one other light source (2b) and at least one other light sensor (1b) associated with at least one other component (1b) of said data processing system; and wherein data is communicated directly between said at least one component and said at least one other component of said data-processing system by transmitting light with one or less turns (1 turn) at a reflection point from said at least one light source to said at least one other component of said data processing system by transmitting light from said at least one light source (2a) to said at least one other light sensor (7b) or one or less turns at a reflection point from said at least one other light source (2b) to said at least one sensor (7a).

8. Regarding claims 2 and 12, Orino discloses at least one light path patch established between said at least one component and said at least one other component of said data-processing system in order to communicate data by light among said at least one light source (2a), said at least one sensor (7a), said at least one other light source (2b) and said at least one other sensor (7b).

9. Regarding claims 5 and 15, Orino discloses providing at least one mirror (4aa) to guide light emitted from said at least one light source to said at least one other light sensor or light emitted from said at least one other light source to said at least one light sensor.

10. Regarding claim 6, Orino discloses establishing at least one light path patch between said at least one component (1a) and said at least one other component (1b) of said data-processing system in order to communicate data by light among said at least one light source (2a), said at least one sensor (7a), said at least one other light source (2b) and said at least one other sensor (7b); and locating at least one mirror (4aa) at an end of said at least one light path in order to guide light emitted from said at least one light path in order to guide light emitted from said at least one light source to said at least one other light sensor or light emitted from said at least one other light source to said at least one light sensor.

11. Regarding claim 8, Orino discloses aligning said at least one component (1a) perpendicular to said at least one other component in order to form a perpendicular light path between said at least one light source and said at least one other sensor (7b) and

said at least one other light source (2b) and said at least one light sensor (7a), wherein said perpendicular light path is guided by at least one mirror (4aa).

12. Regarding claim 9, Orino discloses (Fig. 1) said at least one mirror (4aa) is located at 45 degree angle to said at least component and said at least one other component of said data-processing system.

13. Regarding claim 16, Orino discloses (Fig. 1) a system comprising: at least one light source (2a) and at least one light sensor (7a) associated with at least one component of a data-processing system; at least one other light source (2b) and at least one other light sensor (2b) associated with at least one other component of said data-processing system, wherein data is communicated between said at least one component (1a) and said at least one other component (1b) of said data processing system by transmitting light from said at least one light source (2a) to said at least one other light sensor (7b) or from said at least one other light source to said at least one sensor (7a); at least one light path established between said at least one component and said at least one other component of said data-processing system in order to communicate data by light among said at least one light source, said at least one sensor, said at least one other light source and said at least one other sensor; and at least one mirror (4aa) located at the end of said at least one light path in order to guide light emitted directly from said at least one light source to said at least one mirror and thence directly to said at least one other light sensor and light emitted directly from said at least one other light source to said at least one mirror (4aa) and thence directly to said at least one light sensor.

14. Regarding claim 18, Orino discloses at least one component located perpendicular to said at least one other component in order to form a perpendicular light path between said at least one light source and said at least one other sensor and said at least one other light source and said at least one light sensor, wherein said perpendicular light path is guided by said at least one mirror (4aa).

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

16. Claims 3, 4, 13, 14, 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Orino in view of Kim (20020021855).

17. Regarding claims 3, 13 and 19, Orino discloses the invention set forth above. Orino does not teach the use of LED. Kim discloses the use of LED (Col. 4, Lines 50-55). It is well known to use LED as a light source. It would have been obvious to a person of ordinary skill in the art at the time of the invention to use LED as light source to improve the reliability of the light source.

18. Regarding claims 4, 14 and 20, Orino discloses the invention set forth above. Orino does not disclose the use of VCSEL (Col. 4, Lines 55-60). Kim discloses the use of VCSEL. It is well known to use VCSEL. It would have been obvious to a person of

ordinary skill in the art at the time of the invention to use VCSEL to increase the amount of signal to be sent within a given amount of time.

19. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Orino in view of Takahara (U.S. Patent 5,394,259).

20. Regarding claim 10, Orino discloses the invention set forth above. Orino does not disclose the use IR light. Takahara discloses the use of IR light in modulation (abstract). It is well known to use IR light for data transmission. It would have been obvious to a person of ordinary skill in the art at the time of the invention to use IR light to transmit signal to eliminate the blinking light so the device won't be a distraction.

21. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Orino in view of Ozeki.

22. Regarding claim 17, Orino discloses the invention set forth above. Orino does not disclose the use of different wavelength. Ozeki discloses the use of light source with different wavelength in an optical communication device (Col. 8, Lines 6-30). It is well known to use light source with different wavelength. It would have been obvious to a person of ordinary skill in the art at the time of the invention to use sources with different wavelength to eliminate interference of the signal.

Response to Arguments

23. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

24. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

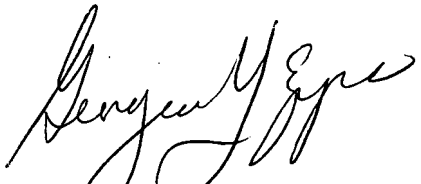
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tony Ko whose telephone number is 571-272-1926. The examiner can normally be reached on Monday-Friday 7:30 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Epps can be reached on 571-272-2328. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TKO



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